then the one in the nest once more. When she had left, the nestling in the tree flew down on the edge of the nest beside his mate. The male came and fed him once but did not feed the bird in the nest. When he had left, both young flew up into the tree. There I left them. That night they were not in the tree nor did I see them again.

Los Angeles, California.

SOME DATA AND RECORDS FROM THE WHETSTONE MOUNTAINS, ARIZONA [1]

By AUSTIN PAUL SMITH

OBSERVATION by contemporaries, ascribes *Junco phœonotus palliatus* almost exclusively to the pine zone of such regions as it inhabits. Yet it was the first Junco I recorded from this range—a single individual, ♀ adult, altitude 4800 feet. This happened on the 26th of September. Next day I flushed a flock of perhaps fifteen, a very few feet from the original location. They were then feeding in and about a growth of Ceanothus and poison oak, for which at most times they showed a preference. Thereafter the Arizona Junco could be noted regularly in the Transition zone, during my stay.

The Gray-headed Junco (*Junco caniceps*) became noticeable several days later, generally associated with the Arizona variety. However, one might chance at any time upon small flocks in the same general locality, but composed entirely of the one species.

Here is a record that strikes me as unusual, when altitude be considered: *Piranga rubra cooperi*, enjoying certain caterpillars that were defoliating the few trees of western walnut that had managed to gain a foothold in a canyon, a little above 4000 feet on September 27; a male in full plumage, and the third of its kind that had been noted that high during the season. Paradoxically, this date also stands for my last Western Tanager (*Piranga ludoviciana*), with an added 1000 feet in elevation. Of the Hepatic Tanager (*Piranga hepatica*) nothing was recorded after July.

As Swarth in his "Birds of the Huachuca Mountains," lays stress on the early departure from that group of *Icterus parisorum*, its persistence in remaining a resident of the Whetstones up to the day of my departure (October 5) is worth setting down. During August the adult birds were but seldom in evidence. Undoubtedly this was due to that month covering their molt period, as the few birds (five or six) I chanced upon, were all in such condition. September brought them forth again, the male birds to my mind, boasting quite as regal plumage as in the spring, the scaly appearance, caused by the gray edgings (occasionally white) of the feathers of the back, detracting in nowise from their splendor. Opuntia fruit ripened during September, and I imagine the Scott Oriole was carefree then, for they seem to feed on little else when these juicy cacti are available. Their sharp clear whistle gains a second life after the molt, and is super-enjoyable because of its solitariness in the forests of this range at such time.

1 This range lies thirty-five miles due north of the Huachuca Mountains.—A. P. S.

Warblers are a very interesting group we admit, but neither species nor individuals were represented sufficiently to gain proportionate rank. Townsend Warblers (*Dendroica townsendi*) I met with during the migrations, at about the 5000 foot level at all times. They limited themselves to such ravines as harbored a growth of madrona trees. Latest spring date: May 13; fall dates: September 5 to 21. Audubon Warblers (*Dendroica auduboni*), found in abundance during the earlier weeks of May, had all disappeared by the 20th, and no more were seen until October 1, when I secured an immature ♂ at 5000 feet. Black-throated Gray Warblers (*Dendroica nigrescens*) being plentiful at all elevations during my entire stay, I cannot give any arrival or departure dates. But a bird secured, with additional ones seen, October 28, along the Rio San Pedro, gives ground for believing them of very late departure from the highlands, and, with future investigation, a winter resident of the valleys of southern Arizona. The Tolmie Warbler (*Oporornis tolmiei*) was not recorded during the spring. An adult ♂ on September 5, was my first fall date; for a month thereafter it was of usual occurrence from where the oaks begin, up to the pines. Quite deliberate of movement, yet retiring, the brushy situations at all times were chosen, in preference to the arborescent growth. The commonest warbler here, the Pileolated (*Wilsonia pusilla pileolata*), was noted every month, only excepting June and July (absent May 26 to August 5).

Lucy Warblers (*Helminthophila luciæ*) will claim attention during their season, in most any arroyo or wash between the mountains and San Pedro River, but none in the mountains proper. The single exception happened on June 3, which I can recall as an exceedingly warm day. Returning from a tramp about the foothills, and pausing to drink at the first spring encountered, a diminutive warbler, recognized as the Lucy, flew down and began quenching its thirst also, at a distance of ten feet. Elevation 4200 feet, among the oaks.

How eager I was, to make the reacquaintance of the Painted Redstart (*Setophaga picta*) after a lapse of some years. Still I believed myself doomed to disappointment up to the 22nd of July. Then a solitary bird, and no more, until after the heavy rains of the last week in August, which put the canyons in ideal condition for this species, i. e., freshened up the mosses and lichens; brought forth a heavy undergrowth; started many rivulets; and lastly, introduced innumerable swarms of midges into the world to enjoy the situation. And now too, the migratory time had arrived. So the two weeks from September 7 to 21, marked a period of abundant opportunity to study this species. Nervous energy in the bird is quite generally attributed in maximum to the wren, but I think I can say confidently, that no bird coming within the scope of my observation, has a better claim to a title of perpetual motion than the Painted Redstart: I have never seen it quiet for ten consecutive seconds!

Among the half dozen species of Woodpeckers, found in the Transition zone at times during my visit, the Gila (*Centurus uropygialis*) and Arizona (*Dryobates arizonæ*) drew the most attention from me—perhaps owing to their limited distribution within our country. In midsummer an occasional Gila Woodpecker ventured into the foothills, to prowl among the old mescal stalks, so numerous thereabouts; later on, by September 1, more were in evidence, and had pushed their range up to 5000 feet greater than when in their usual retreats (lowland valleys and mesa); rarely beating a tattoo or uttering a call; dividing their time between mescal and Opuntia cactus; and now and then inspecting an oak, from which they were generally driven away by a more pugnacious relative, the Ant-eating Woodpecker (*Melanerpes formicivorus*), a species that seemed as numerous as the

trees. Examples of *C. uropygialis* secured at this period, were all discolored about the forehead and chin with juice of Opuntia fruit.

Altho I well knew I was within the described range of *Dryobates arizonæ*, several days passed before a noise, leading one to the suspicion that it was the rapping of a small woodpecker, drew attention. It was not a loud sound, and being interspersed with periods of silence, made the clew somewhat difficult to follow; thus some time elapsed before reaching the origin of the noise. Here a ♀ *D. arizonæ* was working on an oak-trunk, not three feet above the base; while the trees around harbored unnumbered Bridled Tits (*Bæolophus wollweberi*), Lead-colored Bush-tits (*Psaltriparus plumbeus*) and Rocky Mountain Nuthatches (*Sitta carolinensis nelsoni*). Very often did I run across a similar assemblage, but rarely were there more than one or two Arizona Woodpeckers in it. There is no recollection at hand, of noting above four adult woodpeckers of this species in view at once; more likely to chance upon a solitary individual than a pair at any time. The noisiest occasion I can accredit to the species occurred one spring day, when two adult females were located, perched upon a horizontal limb of a madrona, facing each other, and emitting a continuous volume of characteristic woodpecker notes, the effect being hightened by that peculiar muscular movement which accompanies the vocal utterances of some Pici. The continuity was possible by a relay system; and so engrossed were the participants, that I approached to directly under the limb and stood there at least two minutes, without being detected.

Taken as a rule, the Arizona Woodpecker is quite indifferent to one's presence; nevertheless it can be erratic at times. This is best observed during the breeding season, which may be counted as May here (this year only). Few male birds are then to be found, except on the lower declivities of the range, where they are nearly as difficult of approach as the largest members of the family.

There is a certain ravine here, that might with propriety be called Flycatcher Canyon. It was the delight of several of the species, that would be looked for in vain elsewhere in the range. So along this canyon, well up toward the neutral ground of oak and pine, the lonely Olivaceous Flycatcher (*Myiarchus lawrencei olivascens*) dwelt. It was a late comer tho, and not until June 9, did I secure any. On two occasions a pair were seen; all others as single individuals. Their note given at measured intervals was long drawn out, and of a single syllable. Tameness is of the usual Tyrannidæ average.

The same canyon was the sole resting ground of such Olive-sided Flycatchers (*Nuttallornis borealis*) as were recorded. Spending odd days here between September 6 and 17, it contrived to form a temporary brotherhood with a near relative, the Western Pewee (*Contopus richardsonii*). An amusing situation was developed on several occasions; the two species were observed side by side, on some dead bunch of trees growing on the canyon's side. Affinity in color and movement, and similarity in note, however, did not offset the disparagement in size.

Jays—three representatives of the group here. The Arizona Jay (*Aphelocoma sieberi arizonæ*), of whom every collector coming within its habitat will have a changing opinion, as to the advisability of existence as a link in the avian chain of nature: Depending on whether you are out to study its habits; or whether an interview with a varied bird life be frustrated by *A. s. arizonæ* spying you out and declaiming the discovery with enthusiasm for many minutes. But after all, its personality overbalances the hereditary meanness. Economically, it certainly does no harm. For dissect one and examine its craw any time before the acorns come, and you will find remains of Carabid, Elator, Buprestid and other beetles; true bugs of

many kinds; and those little dark gray moths that cling so cunningly to bark of various trees during the day—almost invisible to human eyes, but easy forage for the Arizona Jay. How well it assists in Uncle Sam's reforesting problem is apparent, when a steep hillside, devoid of arborescent growth, is watched closely during acorn season, provided it is the one selected by the Jays for their winter granary. The number of birds you would see journeying back and forth in the course of a few days might cause a mental convulsion, let alone attempting to count the acorns deposited. The ground universally selected contains much rubble, running to small fragments, say the size of a man's fist. Generally the acorns (for several are often deposited in one spot) are pushed under the side of the stone nearest to or facing the ravine; a wise provision for the birds' future, and a fortunate one for the possible future oak, as it guards against washing out in times of heavy rain; likewise conserving moisture in the months of drouth. The spring and summer of the present year (1907) were dry, very dry; yet in many slopes seedling oaks were growing vigorously. No parent oak in the vicinity grew at a higher level; and as the acorn is quite too heavy to be transported by wind action—at least upward—one may figure out conclusions.

Perhaps the Woodhouse Jay (*Aphelocoma woodhousei*) is resident, but I am convinced that, if so, they number but a fraction, when compared to the portion of the species that migrate here; and it was the visiting body that came to my attention. None were seen until September 21; next day found it fully represented; so by October 1 a comparative estimate of numbers would put this species and *A. s. arizonæ* on equal basis, with balance of power held by the Long-crested Jay (*Cyanocitta stelleri diademata*) which held forth in the pine zone until the end of September. After that, a few adventurous individuals wandered down as low as 4500 feet.

Barren was the opportunity for the study of water birds. In addition to an infrequent visit by Killdeers (*Oxyechus vociferus*), but a single kind came to be noted: A flock of eleven Black-crowned Night Herons (*Nycticorax nycticorax nævius*) spending the morning of September 10 in a deep narrow canyon near the 4000 foot level.

Benson, Arizona.

SOME NOTES ON THE GREAT BLUE HERON

By H. W. CARRIGER and J. R. PEMBERTON

FOR a good many years a large number of Great Blue Herons (*Ardea herodias*) occupied a large nesting colony upon the tops of some eucalyptus trees at Redwood City, California. Thirsting for knowledge, and particularly bird-egg knowledge, the Redwood small boy made yearly trips to the heronry to study the inhabitants thereof, and so vigorous and attentive were their studies that the proud and classy Blue Herons declared a moving day, and the spring of 1900 found the once fruitful Mecca of the bird-egg boys a dreary and lonesome spot, except for a bunch of English Sparrows, who took possession of the old nests.

Mr. Chase Littlejohn, well known to most Cooper Club members, often wondered where the colony had moved to because the birds were as numerous as ever upon the marsh land between Redwood and the Bay. One day in 1902, Mr. Lit-